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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/242,388	02/16/1999	HUGH P. CRAIG	2740.2.1	1005

7590

07/17/2002

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EXAMINER

HAMLIN, DERRICK G

ART UNIT

PAPER NUMBER

1751

DATE MAILED: 07/17/2002

19

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/242,388

Applicant(s)

CRAIG, HUGH P.

Examiner

Derrick G. Hamlin

Art Unit

1751

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 23 April 2002.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-39 and 57-67 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-39 and 57-67 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).  
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_ 6) ☐ Other: \_\_\_\_\_

## DETAILED ACTION

### ***Request for Continued Examination***

The request filed on 4/23/2002 for a Request Continued for Continued Examination (RCE) under 37 CFR 1.114 based on parent Application No. 09/242,388 is acceptable and a RCE has been established. An action on the CPA follows.

The rejection of claims 1-39 under 35 U.S.C. 102(b) as being anticipated by Capote et al. (5,376,403) is withdrawn in view of the applicant's amendments.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-39 and 57-67 rejected under 35 U.S.C. 103(a) as being unpatentable over Capote et al. (5,376,403).

Capote discloses an electrically conductive adhesive compositions and methods for the preparation and use thereof, in which a solder powder, a chemically protected cross-linking agent with fluxing properties and a reactive monomer or polymer are the principal components. Depending upon the intended end use, the compositions comprise three or more of the following: a relatively high melting metal powder; solder powder; the active cross-linking agent which also serves as a fluxing agent; a resin; and

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a reactive monomer or polymer. The compositions are useful as improved conductive adhesives, such as for attaching electrical components to electrical circuits: the compositions comprising metal powder are ideally suited for creating the conductive paths on printed circuits. The compositions for forming conductive paths may first be applied to a substrate in the desired pattern of an electrical circuit, and then heated to cure it. During heating, the action of the cross-linking agent and optional reactive monomer or polymer within the mixture fluxes the metals, enabling sintering to occur between the metal powder and the solder powder (abstract).

Initially the cross-linking agents of the reference are protected, whereas the instantly claimed cross-linking agents are unprotected. The instant claims now require that the cross-linking agent be unprotected, however the cross-linking agent becomes de-protected when heat is applied.

Furthermore, the applicant argues that they are non-reactive for different reasons. Still they both have the same function, result and mode of activation (heat) and consequently read on one another. The applicant goes on to argue that the de-protection of the cross-linking agent of the reference creates a byproduct that is undesirable. The applicant should offer evidence, in the form of a declaration, that the byproducts reference would adversely affect the instantly claimed product. The applicant also argues that he processes steps concerning the temperatures are different, however the applicant's invention is drawn to compositions and not processes.

Therefore it would have been obvious at the time the invention was made to create the instantly claimed electrically conductive compositions for use in an electrical

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circuits, since the reference discloses a electrically conductive adhesive compositions comprising a chemically protected cross-linking agent with fluxing properties, a reactive monomer or polymer, a relatively high melting metal powder, solder powder, wherein the active cross-linking agent which also serves as a fluxing agent which may be de-protected with heat.

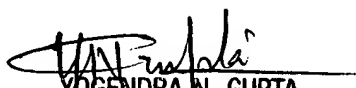
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Derrick G. Hamlin whose telephone number is (703) 305-0590. The examiner can normally be reached on Monday-Thursday and alternating Fridays from 7:30 AM - 4:00 PM.

If reasonable attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dr. Yogendra Gupta, can be reached on (703) 308-4708. The fax phone number for this Group is (703) 305-3600.

Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist whose telephone number is (703) 308-0661.

Derrick G. Hamlin

7/14/02



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